

SEQUENCE LISTING

<110> AMGEN INC.
Aldrich, Teri
Shen, Wenyen
Jacobsen, Frederick W.
Morris, Arvia E.
Allen, Martin J.

<120> Monkey Immunoglobulin Sequences

<130> A-951 (WO)

<140> --to be assigned

<141> 2004-11-04

<150> US 60/517,970

<151> 2003-11-07

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<170> PatentIn version 3.2

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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ser Leu Thr Ser
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Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
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Tyr Val Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ile Lys Thr Cys Gly Gly Ser Lys Pro Pro Thr Cys
100 105 110

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
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Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
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Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Asp Val Lys
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Phe Asn Trp Tyr Val Asn Gly Ala Glu Val His His Ala Gln Thr Lys
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Pro Arg Glu Thr Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
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Thr Val Thr His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Thr Cys Lys
195 200 205

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Gln Lys Thr Ile Ser Lys
 210 215 220

Asp Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
 225 230 235 240

Arg Glu Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
 245 250 255

Gly Phe Tyr Pro Ser Asp Ile Val Val Glu Trp Glu Ser Ser Gly Gln
 260 265 270

Pro Glu Asn Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
 275 280 285

Ser Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser			
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Gly Val His Thr Phe Gln Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser			
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Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr			
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Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
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Thr Val Gly Leu Pro Cys Arg Ser Thr Cys Pro Pro Cys Pro Ala Glu
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Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
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Val Ser Gln Glu Glu Pro Asp Val Lys Phe Asn Trp Tyr Val Asp Gly
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Val Glu Val His Asn Ala Gln Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Ala Leu Pro
195 200 205

Ala Pro Lys Gln Lys Thr Val Ser Lys Thr Lys Gly Gln Pro Arg Glu
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Pro Gln Val Tyr Thr Leu Pro Pro Pro Arg Glu Glu Leu Thr Lys Asn
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Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
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Val Val Glu Trp Ala Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr
260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys
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Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys
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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Phe Thr Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Leu
100 105 110

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
115 120 125

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
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Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
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Glu Val His His Ala Gln Thr Lys Pro Arg Glu Arg Gln Phe Asn Ser
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Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp Leu
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Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
195 200 205

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
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Gln Val Tyr Ile Leu Pro Pro Pro Gln Glu Glu Leu Thr Lys Asn Gln
 225 230 235 240

Val Ser Leu Thr Cys Leu Val Thr Gly Phe Tyr Pro Ser Asp Ile Ala
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Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr Thr
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Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys Leu
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Ile Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys Ser
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Leu Ser Pro Gly Lys
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Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
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Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
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Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Phe Thr Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Leu
100 105 110

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
115 120 125

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
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Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
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Glu Val His His Ala Gln Thr Lys Pro Arg Glu Arg Gln Phe Asn Ser
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Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp Leu
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Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
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Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
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Gln Val Tyr Ile Leu Pro Pro Pro Gln Glu Leu Thr Lys Asn Gln
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Val Ser Leu Thr Cys Leu Val Thr Gly Phe Tyr Pro Ser Asp Ile Ala
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Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr Thr
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Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys Leu
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Ile Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys Ser
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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
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Gly Val His Thr Phe Gln Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
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Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
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Arg Val Glu Phe Thr Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Leu
100 105 110

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
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Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
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Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
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Glu Val His His Ala Gln Thr Lys Pro Arg Glu Arg Gln Phe Asn Ser
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Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp Leu
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Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
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Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
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Gln Val Tyr Ile Leu Pro Pro Pro Gln Glu Glu Leu Thr Lys Asn Gln
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Val Ser Leu Thr Cys Leu Val Thr Gly Phe Tyr Pro Ser Asp Ile Ala
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Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr Thr
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Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys Leu
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Ile Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys Ser
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Val Ser Pro Gly Lys
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ctggctgaac ggcaaggagt acacgtgcaa ggtctccaac aaagccctcc cggccccat	660

ccagaaaaacc atctccaaag acaaaggca gccccgagag cctcaggtgt acaccctgcc	720
cccgccccgg gaggagctga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt	780
ctaccccccgc gacatcgctcg tggagtggga gagcagcggg cagccggaga acacacctaaa	840
gaccacgccc cccgtgctgg actccgacgg ctcctacttc ctctacagca agctcaccgt	900
ggacaagagc aggtggcagc agggaaacgt cttctcatgc tccgtatgc atgaggctct	960
gcacaaccac tacacccaga agagcctctc cctgtctccg ggtaaatgag tcgacatgc	1019

<210> 12
<211> 335
<212> PRT
<213> Macaca fascicularis

<400> 12

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Val Ser			
1	5	10	15
10	15		

Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val			
20	25	30	
30			

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala			
35	40	45	
45			

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Ile Gln Ser Ser Gly			
50	55	60	
60			

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly			
65	70	75	80
75	80		

Thr Gln Thr Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys			
85	90	95	
95			

Val Asp Lys Arg Val Glu Phe Thr Arg Pro Cys Asp Asp Thr Thr Pro			
100	105	110	
110			

Pro Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val			
115	120	125	
125			

Phe Val Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr			
130	135	140	
140			

Pro Glu Val Thr Cys Val Val Asp Val Ser Gln Glu Asp Pro Glu			
145	150	155	160
155	160		

ctcctgggg gaccgtcagt	cttcgtcttc	cccccaaaac	ccaaggacac	cctcatgatc	420
tcccgaccc ctgaggtcac	gtgcgtggtg	gtggacgtga	gccaggaaga	ccccgaggtc	480
cagttcaact ggtacgtgga	cggcgccggag	gtgcatcatg	cccagacgaa	gccacggag	540
acgcagtaca acagcacata	tcgtgtggtc	agcgtcctca	ccgtcacgca	ccaggactgg	600
ctgaacggca aggagtacac	gtgcaaggtc	tccaacaaag	ccctcccg	ccccatccag	660
aaaaccatct ccaaagacaa	agggcagccc	cgagagcctc	aggtgtacac	cctgcccccg	720
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aaccactaca cccagaagag	cctctccctg	tctccggta	aatgagtgc	catgc	1015

<210> 14
<211> 333
<212> PRT
<213> Macaca fascicularis

<400> 14

Arg	Leu	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Val	Ser	Cys	Ser
1				5				10				15			

Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp
				20				25				30			

Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr
						35		40				45			

Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr
					50			55			60				

Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln
					65			70			75			80	

Thr	Tyr	Val	Cys	Asn	Val	Val	His	Glu	Pro	Ser	Asn	Thr	Lys	Val	Asp
					85			90				95			

Lys	Arg	Val	Glu	Phe	Thr	Arg	Pro	Cys	Asp	Asp	Thr	Thr	Pro	Pro	Cys
						100		105				110			

Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Val
					115			120				125			

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
130 135 140

Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
145 150 155 160

Phe Asn Trp Tyr Val Asp Gly Ala Glu Val His His Ala Gln Thr Lys
165 170 175

Pro Arg Glu Thr Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
180 185 190

Thr Val Thr His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Thr Cys Lys
195 200 205

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Gln Lys Thr Ile Ser Lys
210 215 220

Asp Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
225 230 235 240

Arg Glu Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
245 250 255

Gly Phe Tyr Pro Ser Asp Ile Val Val Glu Trp Glu Ser Ser Gly Gln
260 265 270

Pro Glu Asn Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
275 280 285

Ser Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
290 295 300

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
305 310 315 320

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 15
<211> 1584
<212> DNA
<213> Macaca fascicularis

<400> 15
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tggaaactcag	gcgcctgac	cagcggcgtg	cacaccctcc	aggctgtcct	acagtccctca	180
gggctctact	ccctcagcag	cgtggtgacc	gtgccctcca	gcagcttggg	cactcagacc	240
tacgtctgca	acgtcggtca	ttagccccagc	aacaccaagg	tggacaagac	agttggtgag	300
aggccagcga	gggaaggggg	gtgtctgctg	gaagccaggc	tcggccctcc	tgcctggaca	360
aactctggct	gtgcagcccc	agcccaggc	agcagggcag	gccccgtctg	tcttctcacc	420
cagaggcctc	tgcccacccc	actcatgctc	agggagccag	tcttctggct	ttttccacca	480
ggctctgagc	aggcacaggc	tggatgcccc	taccccaggc	cctgcacaca	caggggcagg	540
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ccccaaaggc	caaactccac	tccctcagct	cagacacctt	ctctcctccc	acatcccagt	660
aactccaaat	tttctctctg	cagggctccc	atgtcggtcc	acgtgcccac	cgtgcccagg	720
taagccagcc	caggcctcac	cctccagctc	aaggtggac	aagcgcctta	gagtggcctg	780
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aactcctggg	gggaccgtca	gtcttcctct	tccccccaaa	acccaaggac	accctcatga	900
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agaaaactgt	ctccaaaacc	aaaggtggg	ccgcggggc	acgagggcca	cgtggacaga	1200
ggccggctca	gcccacccctc	tgccctggg	gtgaccgctg	tgccaacctc	tgtccctaca	1260
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aaccaggtca	gcctgacctg	cctggtcaaa	ggcttctacc	ccagcgacat	cgtcggtggag	1380
tgggagagca	gcgggcagcc	ggagaacacc	tacaagacca	ccccggccgt	gctggactcc	1440
gacggctcct	acttcctcta	cagcaagctc	accgtggaca	agagcaggtg	gcagcagggg	1500
aacaccttct	catgctccgt	gatgcatgag	gctctgcaca	accactacac	ccagaagagc	1560
ctctccgtgt	ctccgggtaa	atga				1584

<210> 16
 <211> 326
 <212> PRT
 <213> *Macaca fascicularis*
 <400> 16

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Ser Cys Ser Arg
1 5 10 15

Ser Thr Ser Gln Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Gln Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Gly Leu Pro Cys Arg Ser Thr Cys Pro Pro Cys Pro Ala Glu
100 105 110

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser Gln Glu Glu Pro Asp Val Lys Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Gln Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Ala Leu Pro
195 200 205

Ala Pro Lys Gln Lys Thr Val Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Pro Arg Glu Glu Leu Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 245 250 255

Val Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Thr Tyr Lys Thr
 260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys
 275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys
 290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320

Ser Val Ser Pro Gly Lys
 325

<210> 17
<211> 1584
<212> DNA
<213> Macaca fascicularis

<400> 17		
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tggaaactcag gcgccttgac cagcggcgtg cacaccccttcc aggctgtctt acagtccctca	180	
gggctctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg caccagacc	240	
tacgtctgca acgtcggttca tgagcccagc aacaccaagg tggacaagag agttggtag	300	
aggccagcga gggaaaggggg gtgtctgctg gaagccaggc tcggccctcc tgcctggaca	360	
aactctggct gtgcagcccc agcccaggc agcagggcag gccccgtctg tctcccttacc	420	
cagaggcctc tgcccaccccc actcatgctc agggaggccag tcttctggct tttccacca	480	
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tgctgggctc agacctgcca agagccatat ctgggaggac cctgccctga cctaagccc	600	
ccccaaaggc caaaactccac tccctcagct cagacacctt ctctccccc acatcccagt	660	
aactcccaat cttctctctg cagggctccc atgtcggttcc acgtgcccac cgtgcccagg	720	
taagccagcc caggcctcac cttccagctc aaggtggac aagcgcccta gagtggcctg	780	
tgtccaggga caggccctgc cgggtgctg acacgtccac ctccatctct tcctcagctg	840	
aactcctggg gggaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga	900	
tttccggac ccctgaggc acgtgcgtgg tggtagacgt gagccaggaa gaacccgatg	960	

tcaagttcaa ctggtaacgtg gacggcgtgg aggtgcacaa tgcccagacg aagccacggg	1020
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tgggcgagca acgggcagcc ggagaacacc tacaagacca ccccgcccg gctggactcc	1440
gacggctcct acttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg	1500
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ctctccgtgt ctccggtaa atga	1584

<210> 18
<211> 326
<212> PRT
<213> Macaca fascicularis

<400> 18

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Ser Cys Ser Arg			
1	5	10	15

Ser Thr Ser Gln Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr			
20	25	30	

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser			
35	40	45	

Gly Val His Thr Phe Gln Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser			
50	55	60	

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr			
65	70	75	80

Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys			
85	90	95	

Arg Val Gly Leu Pro Cys Arg Ser Thr Cys Pro Pro Cys Pro Ala Glu			
100	105	110	

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp			
115	120	125	

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser Gln Glu Glu Pro Asp Val Lys Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Gln Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Ala Leu Pro
195 200 205

Ala Pro Lys Gln Lys Thr Val Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Pro Arg Glu Glu Leu Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Val Val Glu Trp Ala Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr
260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Val Ser Pro Gly Lys
325

<210> 19
<211> 978
<212> DNA
<213> Macaca fascicularis

<400> 19
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acagcgcccc tgggctgcct ggtcaaggac tacttccccc aaccctgtac cgtgtcgtgg	120
aactcaggcg ccctgaccag cggcgtgcac accttcccggtctgcctaca gtcctcaggg	180
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttgggcac ccagacacctac	240
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tgtcgttcca cgtgcccacc gtgcccgact gaactcctgg ggggaccgtc agtcttcctc	360
ttccccccaa aacccaagga caccctcatg atttcccgga cccctgaggt cacgtgcgtg	420
gtggtgacg tgagccagga agaacccgat gtcaagttca actggtaacgt ggacggcgtg	480
gaggtgcaca atgcccagac aaagccgcgg gaggagcagt tcaacagcac gtatgcgtg	540
gtcagcgtcc tcaccgtcac acaccaggac tggctgaacg gcaaggagta cacgtgcaag	600
gtctccaaca aagccctccc ggccccaaagg cagaaaactgtctccaaaac caaaggcag	660
ccccgagagc cgccagggtgta caccctgccc ccggcccggttggagactgac caagaaccag	720
gtcagcctga cctgcctgat caaaggcttc taccggcagcg acatcgtcgt ggagtggcgt	780
agcaacgggc agccggagaa cacctacaag accacgcgcgc ccgtgctggatccgcacggc	840
tcctacttcc tctacagcaa gtcaccgtg gacaagagca ggtggcagca gggaaacacc	900
ttctcatgct ccgtgatgca tgaggctctgcacaaccact acacccagaa gagcctctcc	960
ctgtctccgg gtaaatga	978

<210> 20
<211> 325
<212> PRT
<213> Macaca fascicularis

<400> 20

Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Ser Cys Ser Arg Ser
 1 5 10 15

Thr Ser Gln Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
20 25 30

Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
35 40 45

Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
50 55 60

Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr
65 70 75 80

Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys Thr
85 90 95

Val Gly Leu Pro Cys Arg Ser Thr Cys Pro Pro Cys Pro Ala Glu Leu
100 105 110

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
115 120 125

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
130 135 140

Ser Gln Glu Glu Pro Asp Val Lys Phe Asn Trp Tyr Val Asp Gly Val
145 150 155 160

Glu Val His Asn Ala Gln Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
165 170 175

Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp Leu
180 185 190

Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
195 200 205

Pro Arg Gln Lys Thr Val Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
210 215 220

Gln Val Tyr Thr Leu Pro Pro Arg Glu Glu Leu Thr Lys Asn Gln
225 230 235 240

Val Ser Leu Thr Cys Leu Ile Lys Gly Phe Tyr Pro Ser Asp Ile Val
245 250 255

Val Glu Trp Ala Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr Thr
260 265 270

Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys Leu
275 280 285 ,

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys Ser
290 295 300

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
305 310 315 320

Leu Ser Pro Gly Lys
325

<210>	21					
<211>	1584					
<212>	DNA					
<213>	Macaca fascicularis					
 <400>	21					
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tggaaacttag	gccccctgac	cagcggcgtg	cacacccctcc	aggctgtctt	acagtcctca	180
gggcctact	ccctcagcag	cgtggtgacc	gtgccctcca	gcagcttggg	cacccagacc	240
tacgtctgca	acgtcgttca	ttagcccaagc	aacaccaagg	tggacaagag	agttggtgag	300
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aactctggct	gtgcagcccc	agcccaggc	agcagggcag	gccccgtctg	tctccctcacc	420
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tgctgggctc	aggcctgcca	agagccatat	ctgggaggac	cctgccctga	cctaagccca	600
ccccaaaggc	caaactccac	tccctcagct	cagacacctt	ctctccccc	acatcccagt	660
aactcccaat	tttctctctg	cagggtctccc	atgtcgttcc	acgtgcccac	cgtgcccagg	720
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tcaagttcaa	ctggtaacgt	gacggcgtgg	aggtgcacaa	tgcccagacg	aagccacggg	1020
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tgggagagca	acgggcagcc	ggagaacacc	tacaagacca	ccccgccccgt	gctggactcc	1440
gacggctctt	acttcctcta	cagcaagctc	atcggtggaca	agagcaggtg	gcagcagggg	1500
aacacccctt	catgctccgt	gatgcatgag	gctctgcaca	accactacac	ccagaagagc	1560

ctctccgtgt ctccggtaa atga

1584

<210> 22
<211> 326
<212> PRT
<213> Macaca fascicularis

<400> 22

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Ser Cys Ser Arg
1 5 10 15

Ser Thr Ser Gln Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Gln Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Val Cys Asn Val Val His Glu Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Gly Leu Pro Cys Arg Ser Thr Cys Pro Pro Cys Pro Ala Glu
100 105 110

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
130 135 140

Val Ser Gln Glu Glu Pro Asp Val Lys Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Gln Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Thr His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Thr Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 210 215 220

Pro Gln Val Tyr Ile Leu Pro Pro Pro Gln Glu Glu Leu Thr Lys Asn
 225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Thr Gly Phe Tyr Pro Ser Asp Ile
 245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Thr Tyr Lys Thr
 260 265 270

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Tyr Phe Leu Tyr Ser Lys
 275 280 285

Leu Ile Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Thr Phe Ser Cys
 290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 305 310 315 320

Ser Val Ser Pro Gly Lys
 325

<210> 23
<211> 996
<212> DNA
<213> Macaca fascicularis

<400> 23		
gcctccacca agggccatc ggtcttcccc ctggcgccct cctccaggag caccccgag	60	
agcacagcg ccctgggctg cctggtaaag gactacttcc ctgaaccgtg accgtgtcg	120	
tggaaacttag gctccctgac cagcggcggtg cacacccccc cggctgtcct acagtccctca	180	
gggctctact ccctcagcag cgtggtgacc gtgcctcca gcagcttggg caccagacc	240	
tacgtctgca acgttaaacca caagcccagc aacaccaagg tggacaagag agttgagata	300	
acatgtggtg gtggcagcaa acctcccacg tgcccaccgt gcccagcacc tgaactcctg	360	
gggggaccgt cagtcttcct cttccccca aaacccaagg acaccctcat gatctccgg	420	
acccctgagg tcacgtgcgt ggtggtagac gtgagccagg aagaccccgaa tgtcaagttc	480	
aactggtagc taaaatggcgcc ggaggtgcat catgcccaga cgaagccacg ggagacgcag	540	
tacaacagca catatcgtgt ggtcagcgtc ctcaccgtca cgcaccagga ctggctgaac	600	
ggcaaggagt acacgtgcaa ggtctccaaac aaagccctcc cggcccccatt ccagaaaaacc	660	

atctccaaag acaaaggca gccccgagag cctcaggtgt acaccctgcc cccgtcccgg	720
gaggagctga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctaccccagc	780
gacatcgctcg tggagtggga gagcagcggg cagccggaga acacctacaa gaccaccccg	840
cccggtctgg actccgacgg ctccctacttc ctctacagca agtcaccgt ggacaagagc	900
aggtggcagc aggggaacgt cttctcatgc tccgtatgc atgaggctct gcacaaccac	960
tacacccaga agagcctctc cctgtctccg ggtaaa	996

<210> 24
<211> 332

<212> PRT
<213> Macaca fascicularis

<400> 24

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Arg			
1	5	10	15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr		
20	25	30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ser Leu Thr Ser		
35	40	45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser		
50	55	60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr			
65	70	75	80

Tyr Val Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys		
85	90	95

Arg Val Glu Ile Thr Cys Gly Gly Ser Lys Pro Pro Thr Cys Pro		
100	105	110

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe		
115	120	125

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val		
130	135	140

Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Asp Val Lys Phe			
145	150	155	160

Asn Trp Tyr Val Asn Gly Ala Glu Val His His Ala Gln Thr Lys Pro
 165 170 175

Arg Glu Thr Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
 180 185 190

Val Thr His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Thr Cys Lys Val
 195 200 205

Ser Asn Lys Ala Leu Pro Ala Pro Ile Gln Lys Thr Ile Ser Lys Asp
 210 215 220

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
 225 230 235 240

Glu Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
 245 250 255

Phe Tyr Pro Ser Asp Ile Val Val Glu Trp Glu Ser Ser Gly Gln Pro
 260 265 270

Glu Asn Thr Tyr Lys Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
 275 280 285

Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
 290 295 300

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
 305 310 315 320

Tyr Thr Gln Lys Ser Leu Ser Pro Gly Lys
 325 330

<210> 25
<211> 999
<212> DNA
<213> Macaca fascicularis

<400> 25		
gcctccacca agggcccatc ggtttcccc ctggcgccct cctccaggag caccccgag	60	
agcacagcgg ccctgggctg cctggtaag gactacttcc ctgaaccgt gaccgtgtcg	120	
tggaaactcag gcccctgac cagcggcgtg cacaccccttcc cggctgtcct acagtcctca	180	
gggctctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg cacccagacc	240	
tacgtctgca acgtaaacca caagcccagc aacaccaagg tggacaagag agttgagata	300	
aaaacatgtg gtgggtggcag caaacccccc acgtgcccac cgtgcccagc acctgaactc	360	

ctggggggac cgtcagtctt cctttcccc ccaaaaaccca aggacaccct catgatctcc	420
cggaccctcg aggtcacatg cgtgggtgt gacgtgagcc aggaagaccc cgagggtccag	480
ttcaactggt acgtaaacgg cgccggagggtg catcatgccc agacgaagcc acgggagacg	540
cagtacaaca gcacgtaccg cgtggtcagc gtcctcaccg tcacacacca ggactggctg	600
aacggcaagg agtacacgtg caaggtctcc aacaaagccc tcccgcccc catccagaaa	660
accatctcca aagacaaagg gcagccccga gagcctcagg tgtacaccct gccccgtcc	720
cgggaggagc tgaccaagaa ccaggtcagc ctgacctgcc tggtaaaagg cttctacccc	780
agcgacatcg tcgtggagtg ggagagcagc gggcagccgg agaacaccta caagaccacc	840
ccgcccgtgc tggactccga cggctcctac ttccctetaca gcaagctcac cgtggacaag	900
agcaggtggc agcaggggaa cgtctctca tgctccgtga tgcattggc tctgcacaac	960
cactacaccc agaagagcct ctccctgtct ccgggtaaa	999

<210> 26

<211> 333

<212> PRT

<213> Macaca fascicularis

<400> 26

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Arg			
1	5	10	15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr			
20	25	30	

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser			
35	40	45	

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser			
50	55	60	

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr			
65	70	75	80

Tyr Val Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys			
85	90	95	

Arg Val Glu Ile Lys Thr Cys Gly Gly Ser Lys Pro Pro Thr Cys			
100	105	110	

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu			
115	120	125	

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
130 135 140

Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
145 150 155 160

Phe Asn Trp Tyr Val Asn Gly Ala Glu Val His His Ala Gln Thr Lys
165 170 175

Pro Arg Glu Thr Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
180 185 190

Thr Val Thr His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Thr Cys Lys
195 200 205

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Gln Lys Thr Ile Ser Lys
210 215 220

Asp Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
225 230 235 240

Arg Glu Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
245 250 255

Gly Phe Tyr Pro Ser Asp Ile Val Val Glu Trp Glu Ser Ser Gly Gln
260 265 270

Pro Glu Asn Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
275 280 285

Ser Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
290 295 300

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
305 310 315 320

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 27

<211> 999

<212> DNA

<213> Macaca fascicularis

<400> 27

gcctccacca agggcccatc ggtttcccc ctggcgccct cctccaggag cacctccgag

60

agcacagcgg ccctgggctg cctggtcaag gactacttcc ctgaaccgt gaccgtgtcg	120
tggaaactcag gcgcctgac cagcggcgtg cacaccttcc cggtgtcct acagtccctca	180
gggctctact ccctcagcag cgtggtgacc gtgcctcca gcagcttggg cacccagacc	240
tacgtctgca acgtaaacca caagcccagc aacaccaagg tggacaagag agttgagata	300
aaaacatgtg gtggtggcag caaacctccc acgtgcccac cgtgcccagc acctgaactc	360
ctggggggac cgtcagtctt cctcttcccc caaaaaccca aggacaccct catgatctcc	420
cggacccctg aggtcacatg cgtggtggtg gacgtgagcc aggaagaccc cgaggtccag	480
ttcaactggt acgtaaacgg cgccggaggtg catcatgccc agacgaagcc acgggagacg	540
cagtacaaca gcacgtaccc cgtggtcagc gtcctcaccg tcacacacca ggactggctg	600
aacggcaagg agtacacgtg caaggtctcc aacaaagccc tcccgcccc catccagaaa	660
accatctcca aagacaaaagg gcagccccga gagcctcagg tgtacaccct gccccgtcc	720
cgggaggagc tgaccaagaa ccaggtcagc ctgacctgcc tggtaaagg cttctacccc	780
agcgacatcg tcgtggagtg ggagagcagc gggcagccgg agaacaccta caagaccacc	840
ccgcccgtgc tggactccga cggctcctac ttccctataca gcaagctcac cgtggacaag	900
agcaggtggc agcagggaa cgtcttctca tgctccgtga tgcattggc tctgcacaac	960
cactacaccc agaagagcct ctccctgtct ccgggtaaa	999

<210> 28
<211> 333
<212> PRT
<213> Macaca fascicularis
<400> 28

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Arg			
1	5	10	15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr			
20	25	30	

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser			
35	40	45	

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser			
50	55	60	

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr			
65	70	75	80

Tyr Val Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ile Lys Thr Cys Gly Gly Ser Lys Pro Pro Thr Cys
100 105 110

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
115 120 125

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
130 135 140

Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
145 150 155 160

Phe Asn Trp Tyr Val Asn Gly Ala Glu Val His His Ala Gln Thr Lys
165 170 175

Pro Arg Glu Thr Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
180 185 190

Thr Val Thr His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Thr Cys Lys
195 200 205

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Gln Lys Thr Ile Ser Lys
210 215 220

Asp Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
225 230 235 240

Arg Glu Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
245 250 255

Gly Phe Tyr Pro Ser Asp Ile Val Val Glu Trp Glu Ser Ser Gly Gln
260 265 270

Pro Glu Asn Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
275 280 285

Ser Tyr Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
290 295 300

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
305 310 315 320

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325 330

<210> 29
<211> 324
<212> DNA
<213> Macaca fascicularis

<400> 29
 cgcgcgtgtgg ctgcaccatc tgtcttcatttcccccatttctgaggatca ggtgaaatctt 60
 ggaactgtctt ctgttgtgtgcctgctgaat aacttctatcccagagaggc cagcgtaaagg 120
 tggaagggtgg atgggtgtcct caaaaacgggt aactcccagg agagtgtcac agagcaggac 180
 agcaaggaca acacctacag cctgagcagc accctgacgc tgagcagcac agactaccag 240
 agtcacaatgtctatgcctgcgaagtcacc catcagggcc tgagctcgcc cgtcaccaag 300
 agcttcaaca gaggagagtgttag 324

<210> 30
<211> 107
<212> PRT
<213> Macaca fascicularis

<400> 30

Arg Ala Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Glu Asp
 1 5 10 15

Gln Val Lys Ser Gly Thr Val Ser Val Val Cys Leu Leu Asn Asn Phe
 20 25 30

Tyr Pro Arg Glu Ala Ser Val Lys Trp Lys Val Asp Gly Val Leu Lys
 35 40 45

Thr Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Asn
 50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Ser Thr Asp Tyr Gln
 65 70 75 80

Ser His Asn Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
 85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 100 105

<210> 31
<211> 20
<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 31

gcctccacca agggccctcg

20

<210> 32

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 32

tttacccgga gacagggaga g

21

<210> 33

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 33

gcctccacca agggccctcg

20

<210> 34

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 34

tttacccgga gacagggaga g

21

<210> 35

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 35

gtcacatggc accacaccttc t

21

<210> 36

<211> 21

<212> DNA

<213> Artificial Sequence

<220>
<223> Primer

<400> 36
ggtaacgtgcc aagcatcctc g 21

<210> 37
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 37
ctggcggtcct gctccaggag c 21

<210> 38
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 38
gctcctggag caggacgcca g 21

<210> 39
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 39
gcttagcacca agggcccatc ggtctt 26

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 40
aactgtcttg tcgacacctgg ttttg 25

<210> 41
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 41
caacacccaag gtcgacaaga gagtt 25

<210> 42
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 42
gcggccgctc atttacccgg agacacggag 30

<210> 43
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 43
cgtctctagt gcctccacca agggccatc 30

<210> 44
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 44
gcatgtcgac tcatttaccc ggagacaggg agag 34

<210> 45
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 45
atcaaacgag ctgtggctgc acca 24

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Primer

<400> 46
caggtggggg cacttctccc t

21

<210> 47
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 47
gaggttcagc tgggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc 60
tcctgtcag gctctggatt cacccatcgat agaaatgcta tgggtacatc tcggccaggct 120
ccagggaaaag gtctggagtg ggtatcaggt attggtaactg gtgggtgccac aaactatgca 180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt 240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac 300
tactttgact actggggcca gggAACCCCTG gtcaccgtct cctca 345

<210> 48
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 48
gaggttcagc tgggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc 60
tcctgtcag gctctggatt cacccatcgat agaaatgcta tgggtacatc tcggccaggct 120
ccagggaaaag gtctggagtg ggtatcaggt attggtaactg gtgggtgccac aagctatgca 180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt 240
caaataaca gcctgagtgcc cgaggacatg gctgtgtatt actgtgcaag agggaggtac 300
tacttcaccc actggggcca gggAACCCCTG gtcaccgtct cctca 345

<210> 49
<211> 347
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 49
gaggttcagc tgggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc 60

tcctgtgcag gctctggatt cacctcagt agaaatgcta tttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtgggccac aagctatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggtacaaca actggggcca gggaccctg gtcaccgtct cttcaca	347

<210> 50
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

gaggttcagt tggtgcatc tgggggaggc ttggtaatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacctcagt agaaatgcta tttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtgggccac aaactatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tacttccgt ggtggggcca gggaccctg gtcaccgtct cttca	345

<210> 51
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

gaggttcagc tggtgcatc tgggggaggc ttggtaatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacctcagt agaaatgcta tttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtgggccac aaactatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tacttccgt ggtggggcca gggaccctg gtcaccgtct cttca	345

<210> 52
<211> 345
<212> DNA
<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 52

gaggttcagt tggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatcgta agaaatgcta tggtctgggt tcgcaggct	120
ccaggaaaag gtctggagtg ggtatcaggt attggtaactg gtgggccac aaactatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggtacccgt ggtggggcca gggaaaccctg gtcacacgtct cctca	345

<210> 53

<211> 345

<212> DNA

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 53

gaggttcagc tggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatcgta agaaatgcta tggtctgggt tcgcaggct	120
ccaggaaaag gtctggagtg ggtatcaggt attggtaactg gtgggccac aagctatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggtacccgt ggtggggcca gggaaaccctg gtcacacgtct cctca	345

<210> 54

<211> 345

<212> DNA

<213> Artificial Sequence;

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 54

gaggttcagt tggcagtc tgggggaggc ttggcacatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatcgta agaaatgcta tggtctgggt tcgcaggct	120
ccaggaaaag gtctggagtg ggtatcaggt attggtaactg gtgggccac aaactatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc ctttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggtcccggt ggtggggcca gggaaaccctg gtcacacgtct cctca	345

<210> 55

<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 55	
gaggttcagc tggtgcatgc tgggggaggc ttggtagatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatgt agaaatgcta tgttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtggtgccac aagctatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggttccgt ggtggggcca gggaaaccctg gtcaccgtct cctca	345

<210> 56
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 56	
gaggttcagt tggtgcatgc tgggggaggc ttggtagatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatgt agaaatgcta tgttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtggtgccac aaactatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300
tggtaaccgt ggtggggcca gggaaaccctg gtcaccgtct cctca	345

<210> 57
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 57	
gaggttcagc tggtgcatgc tgggggaggc ttggtagatc ctggggggtc cctgagactc	60
tcctgtgcag gctctggatt cacccatgt agaaatgcta tgttctgggt tcgccaggct	120
ccagggaaaag gtctggagt ggtatcaggt attggtaactg gtggtgccac aagctatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt	240
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300

tggtaaccgt ggtggggcca ggaaaccctg gtcaccgtct cctca

345

<210> 58
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 58		
gaggttcagc tggtgcaagtc tgggggaggc ttggtaacatc ctggggggtc cctgagactc	60	
tcctgtgcag gctctggatt caccttcagt agaaatgcta tggtctgggt tcgccaggct	120	
ccagggaaaag gtctggagtg ggtatcaggt attggtaactg gtggtgccac aagctatgca	180	
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgtatctt	240	
caaataaca gcctgagagc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300	
tacttcccgt ggtggggcca ggaaaccctg gtcaccgtct cctca	345	

<210> 59
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 59		
gaggttcagc tggtgcaagtc tgggggaggc ttggtaacatc ctggggggtc cctgagactc	60	
tcctgtgcag gctctggatt caccttcagt agaaatgcta tggtctgggt tcgccaggct	120	
ccagggaaaag gtctggagtg ggtatcaggt attggtaactg gtggtgccac aagctatgca	180	
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgtatctt	240	
caaataaca gcctgagatgc cgaggacatg gctgtgtatt actgtgcaag agggaggtac	300	
tacttcccgt ggtggggcca ggaaaccctg gtcaccgtct cctca	345	

<210> 60
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 60		
gaggttcagt tggtgaggatc tgggggaggc ttggtaacagc ctggggggtc cctgagactc	60	
tcctgtgcag cctctggatt caccttcagt agaaatgcta tggtctgggt tcgccaggct	120	

ccagggaaaag gtctggagt ggtatcagg attggtaactg gtgggtgccac aagctatgca	180
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaactc cttgttatctt	240
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgcaag agggaggtac	300
tacttcccgt ggtggggcca gggAACCTG gtcaccgtct cctca	345

<210> 61
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 61

Glu Val Gln Leu Val Gln Ser Gly Gly Gly		His Pro Gly Gly	
1	5	10	15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn		
20	25	30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val		
35	40	45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys		
50	55	60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu			
65	70	75	80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala		
85	90	95

Arg Gly Arg Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr		
100	105	110

Val Ser Ser
115

<210> 62
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 62

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Ser Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Thr His Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 63

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 63

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Tyr Asn Asn Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 64

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 64

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 65

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 65

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Thr Arg Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 66

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 66

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Tyr Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser

<210> 67

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 67

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Tyr Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 68

<211> 115

<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 68

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 69
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 69

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 70

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 70

Glu Val Gln Leu Val Gln Ser Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Tyr Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 71
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 71

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Trp Tyr Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 72
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 72

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 73

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 73

Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val His Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Ser Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 74
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 74

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Tyr Tyr Phe Pro Trp Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
115

<210> 75
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 75

gaaatttgtt tgacgcagtc tccaggcacc ctgtcttggt ctccagggga aagagccacc 60
ctctcctgca gggccagtc gagtgtagc agcagctact tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatctt ggtgcattca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctggaca gacttcactc tcaccatcg cagactggag	240
cctgaagatt ttgcagtgtta ttactgtcag cagtatggta gtcacacctcc gtggacgttc	300
ggccaaggga ccaagggtgga aatcaaa	327

<210> 76
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 76	
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccaggggaa aagagccacc	60
ctctcctgca gggccagtca gagtgtagc aacagctact tagcctggta ccagcagaaa	120
cctggccagg ctcccaggct cctcatctat ggtgcattca gcagggcccc tggcatccca	180
gacaggttca gtggcagtgg gtctggaca gacttcactc tcaccatcg cagactggag	240
cctgaagatt ttgcagtgtta ttactgtcag cagtatgtac actcagcagg gtggacgttc	300
ggccaaggga ccaagggtgga gatcaaa	327

<210> 77
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 77	
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccggggaa aagagccacc	60
ctctcctgca gggccagtca gactgttaac agcgactact tagcctggta ccagcagaaa	120
ccggggcagg ctcccaggct cctcatctat ggtgcattca gcagggccac tggcatccca	180
gacaggttca gtggcagtgg gtctggaca gacttcactc tcaccatcg cagactggag	240
cctgaagatt ttgcagtgtta ttactgtcag cagtatggta ggtcacacctcc gtggacgttc	300
ggccaaggga ccaaagggtgga tatcaaa	327

<210> 78
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 78
gaaattgtga tgacgcagtc tccaggcacc ctgtcttgc ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtagc agcgactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcacatcta gcagggccctc tggcatccca 180
gacaggttca gtggcagtgg gtttgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcaatata ttactgtcag cagtatggta gtcacacctcc gtggacgttc 300
ggccaaggga ccaagggtgga aatcaaa 327

<210> 79
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 79
gatattgtgc tgacccagtc tccagccacc ctgtcttgc ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtaac agcaactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcct acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtttgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtta ttactgtcag cagtatggta gtcacccacc gtggacgttc 300
ggccaaggga cacgactggaa gattaaa 327

<210> 80
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 80
gatattgtgc tgacgcagac tccagccacc ctgtcttgc ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtaggc agcagctact tagcctggta ccagcagaga 120
cctggccagg ctcccaggct cctcatctat ggtgcacatcca gcagggccac tggcatcccc 180
gacaggttca gtggcagtgg gtttgggaca gacttcactc tcacgatcag cagactggag 240
cctgaagatt ttgcagtgtta ttattgtcag cagtatggaa gttcacctcc gtggatgttc 300
ggccaaggga ccaagggtgga gatcaaa 327

<210> 81
<211> 109
<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 81

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Phe Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 82

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 82

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asn Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Pro Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp His Ser Ala
85 90 95

Gly Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 83

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 83

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Thr Val Asn Ser Asp
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Arg Ser Pro
85 90 95

Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105

<210> 84

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 84

Glu Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asp
 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Ser Gly Ile Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95

Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 85

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 85

Asp Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Asn Ser Asn
 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

Ile Tyr Gly Thr Ser Tyr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Arg Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95

Pro Trp Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 86

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody variable domain sequences that recognize anti IL-4R

<400> 86

Asp Ile Val Leu Thr Gln Thr Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Gly Ser Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Pro Trp Met Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105